

REMARKS

This communication is in response to the non-final Office Action issued October 6, 2004. The Examiner rejected claims 1-5, 23, and 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention. The Examiner rejected claims 11, 12, 25-28, and 30-32 under 35 U.S.C. § 102 in view of U.S. Patent No. 5,733,428 to Calabria *et al.* (Calabria). The Examiner rejected claims 1-10, 13-24, and 29 under 35 U.S.C. § 103 in view of Calabria modified by one or more of U.S. Patent Nos. 4,647,274 to Oda (Oda), 5,952,415 to Hwang (Hwang), and 5,006,297 to Brown *et al.* (Brown).

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

In section 3 of the Office Action, the Examiner rejected claims 1-5, 23, and 24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention. Specifically, the Examiner rejected claim 1 because “there are no steps for making a golf ball” and claim 23 because “it is confusing as to whether [the] subassembly is actually heated to a temperature less than the first temperature.”

Regarding claim 1, the claim has been amended above, obviating the rejections of claims 1-5.

Regarding claim 23, the Applicants have amended claim 22 to recite “cooling” to a second temperature “less than said first temperature” and canceled claim 23. Claim 24 has been amended to depend from claim 22.

In view of the foregoing, the Examiner’s rejections under 35 U.S.C. § 112, second paragraph, of the claims are believed to be overcome.

Claim Rejections Under 35 U.S.C. § 102

In sections 4-6 of the Office Action, the Examiner rejected claims 11, 12, 25-28, and 30-32 under 35 U.S.C. § 102 in view of Calabria.

It is well settled that for a rejection of a claim under 35 U.S.C. § 102 to be proper, each and every element as set forth in the claim must be found in a single reference. See, for example, MPEP § 2131. For at least the reasons stated below, the Examiner's rejections of the claims do not satisfy this burden.

Calabria appears to disclose a method of forming a cover on a golf ball by pouring a liquid castable material into an open mold and allowing it to continue polymerizing into a solid form after the mold is closed. *See* col. 3, lines 7-10. The prepolymer and curative that form the polyurethane cover are pre-heated to 140°-180°F. *See* col. 4, lines 54-58. The mixture of these materials is an exothermic reaction, so the mixing head is maintained by cooling. *See* col. 5, lines 42-47. Thus, the explicit language of Calabria is in direct contrast to the Examiner's statement that the materials are inherently maintained at a temperature less than 130° F. Claim 11 has been amended to include the recitations of claim 12, which has been canceled.

In view of the foregoing, the Examiner's rejections under 35 U.S.C. § 102 to the claims are believed to be overcome.

Claim Rejections Under 35 U.S.C. § 103

In sections 8-15 of the Office Action, the Examiner rejected claims 1-10, 13-24, and 29 under 35 U.S.C. § 103 in view of Calabria modified by one or more of Oda, Hwang, and Brown. Specifically, the Examiner rejected: claims 1-5 and 13 in view of Calabria modified by Oda; claims 6-10 in view of Calabria modified by Oda and Hwang; claims 9 and 10 in view of Calabria modified by Oda, Hwang, and Brown; claims 14-16 and 29 in view of Calabria

modified by Hwang; and claims 17 and 18 in view of Calabria modified by Hwang; claims 19-24 in view of Calabria modified by Hwang and Brown.

It is well settled that for a rejection of a claim under 35 U.S.C. § 103 to be proper, each and every recitation of the claim must be present in the cited reference(s). See, for example, MPEP § 2143.03. It is also well settled that for a rejection of a claim under 35 U.S.C. § 103 to be proper, there must be some suggestion or motivation to modify a reference or combine reference teachings. See, for example, MPEP § 2143.01. When so modifying a reference, the proposed modification cannot render the prior art unsatisfactory for its intended purpose or change the principle of operation of a reference. See, for example, MPEP § 2143.01. The modification must support a reasonable expectation of success with some degree of predictability. See, for example, MPEP § 2143.02. Finally, the source of the suggestion or motivation to modify a reference cannot be the Applicants' own disclosure. See, for example, MPEP § 2143. For at least the reasons stated below, the Examiner's rejections of the claims do not satisfy these burdens.

Claim 1 has been amended to include the recitations of claim 6, which has been canceled. In rejecting claim 6, the Examiner relied upon Hwang to address the volumetric reduction recitations. Hwang appears to disclose golf balls having cores formed of a mixture of base resins, α,β -ethylenical unsaturated carboxylic acid, and fatty acid bismuth salt, in which the salt is present initially in amounts of 3-25 and 5-50 parts by weight respectively per 100 parts by weight of the base resins. The cores are formed by mixing the components together in liquid form at an elevated temperature and placing the mixture in a mold. The mold is cooled such that the mixture solidifies to form a solid core. As with virtually all compounds, the mixture decreases in volume as it cools from liquid form to solid form. *See* col. 3, lines 11-43.

In contrast, the present application discloses and claims methods of making a golf ball that counteract the heat generated by forming the cover over the core. As discussed in the written description, heat generated by forming the cover is transferred to the core, or golf ball subassembly, resulting in a thermal expansion of the subassembly. This can result in an unplayable ball being formed.

To counteract the ill effects of this thermal expansion, the methods of the present application cool the subassembly such that it undergoes a volumetric reduction, and the cover is applied over the volumetrically reduced subassembly. As this volumetric reduction is of the formed subassembly, it inherently is in addition to any volumetric reduction that occurs as a part of the core forming process. Since Hwang only discloses cooling the core during its formation, Hwang does not disclose, or even suggest, that a formed golf ball subassembly be cooled such that it undergoes a volumetric reduction and a cover layer be applied thereon while the subassembly is in a volumetrically reduced state compared to its ambient state. Claim 1 has been amended to recite “providing a pre-formed golf ball subassembly” to further clarify that the step of cooling the golf ball subassembly to volumetrically reduce it is in addition to any cooling and resulting volumetric reduction that occurs during core formation.

Further regarding claims 9 and 10, the Examiner relied on Brown to address the heating and holding recitations. In the rejections, the Examiner stated that

Brown et al also teach heating the mold halves to cure the cover material This step of heating the mold halves constitutes the claimed steps of heating a subassembly to a first temperature and holding the subassembly at the first temperature of a first time duration, heating the subassembly to a second temperature and holding the subassembly at the second temperature for a second time duration. As the temperature of the mold halves increases from being heated, it is inherent that the temperature of the subassembly is held, even for the slightest amount of time, at numerous temperatures.

The Applicants respectfully traverse the Examiner's rejection. The Examiner has taken an improper interpretation of "holding." One of skill in the art would not consider heating an object to constitute several infinitesimal heating and holding steps, as suggested by the Examiner. Furthermore, such an interpretation is scientifically inaccurate. Heating is a continuous process and does not occur in a step-like fashion, as suggested by the Examiner.

Regarding claims 14-16, in addition to being allowable due to their dependence upon claim 11, these claims are also allowable for at least the reasons discussed above with respect to amended claim 1.

Regarding claims 17-24, these claims are also allowable for at least the reasons discussed above with respect to amended claim 1. Further regarding claims 19-24, these claims are also allowable for at least the reasons discussed above with respect to claims 9 and 10.

Regarding claim 29, in addition to being allowable due to its dependence upon claim 25, this claim is also allowable for at least the reasons discussed above with respect to amended claim 1.

In view of the foregoing, the Examiner's rejections under 35 U.S.C. § 103 to the claims are believed to be overcome.

Additional Fees

The Commissioner is hereby authorized to charge any insufficiency or credit any overpayment associated with this application to Swidler Berlin, LLP Deposit Account No. 19-5127 (order no. 20002.0107).

Conclusion

Claims 1, 7-9, 11, 13, 17, 22, and 24 have been amended, and claims 6, 12, 23, and 33-41 have been canceled. Thus, claims 1-5, 7-11, 13-22, and 24-32 are pending, and are believed to be in condition for allowance. In view of the foregoing, all of the Examiner's rejections of the claims are believed to be overcome. The Applicants respectfully request reconsideration and issuance of a Notice of Allowance for all claims. Should the Examiner feel further communication would help prosecution, the Examiner is urged to call the undersigned at the telephone number provided below.

Respectfully Submitted,



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